

Tennessee Comprehensive Assessment Program
Item Sampler

Grade 6

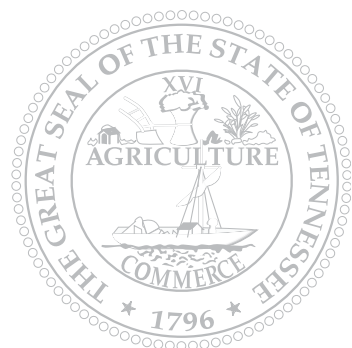


Table of Contents

Introduction	1
What is the TCAP Achievement Test?	1
What are the questions testing?	1
Who will be tested?	1
How long will the tests take?	1
How do I use the sample questions?	1
How will the tests be scored?	2
May calculators be used?	2
Which test accommodations may be used?	2
What are some tips for preparing students for the test?	2
Reading and Language Arts	3
Mathematics	8
Science	15
Social Studies	21
Answer Key	27

Introduction

What is the TCAP Achievement Test?

The TCAP Achievement Test is a multiple-choice test designed to measure student achievement in certain skills in five subject areas: Reading, Language Arts, Mathematics, Science, and Social Studies. The sample questions in this On-Line Item Sampler are representative of the item types and item formats that will be used in the actual test, including those questions with art and without art.

What are the questions testing?

Questions are written to test student performance in State and national content areas. The State Content Standards and Performance Indicators were developed by the Tennessee Department of Education.

These Standards and Performance Indicators are listed on the State Department of Education Web site at <http://www.state.tn.us/education/ci/cistandards.htm>

Who will be tested?

All students in grades three through eight will be tested.

How long will the tests take?

The length of the tests will vary, depending on the grade level. The time limits are generous and allow most students time to finish. Extended time limits apply for students using accommodations.

How do I use the sample questions?

These questions provide information for students, parents, and teachers about the TCAP Achievement Test. The questions in the On-Line Item Sampler are representative of most of the question types that will be on the TCAP Achievement Test.

These questions can be used as a classroom learning session or as an individual, short practice test to prepare students for the actual test. Item types with and without art are presented to better familiarize students with the actual test format.

An answer key for the sample questions is provided at the end of this On-Line Item Sampler.

How will the tests be scored?

The test answers will be machine scored. Results from the test provide information about how well students performed on the content being tested.

May calculators be used?

A calculator may be used for test items that do not measure the academic skill of computation, e.g., applied concepts and algebraic problems. Calculators may be used on most TCAP Achievement Mathematics Subtests. Calculators **may not** be used on any part of the K–2 test.

Which test accommodations may be used?

The Achievement Test may be administered using various procedures (or accommodations) that are used during the student’s daily educational program. Certain conditions must be met for students to be eligible for Special and English Language Learner Accommodations.

What are some tips for preparing students for the test?

Remind students to

Relax: It is normal to be somewhat anxious before the test. Remember that the score is only one of a number of measures of performance.

Listen: Listen to and read the test directions carefully.

Plan Use of Time: First, answer all the questions you are sure about. Do not spend too much time on any one question. If a question seems to take too long, skip it and return to it later if you have extra time.

Pause and Think: If you are not sure how to answer a question, carefully read it again. Rule out answer choices that you know are incorrect and then choose from those that remain.

Reading and Language Arts



Directions

Read the information about bamboo. Then answer Numbers 1 through 7.

Bamboo is a type of grass that commonly grows in tropical climates. Bamboo is unique in that its stalks are hollow, woody, and exceptionally large. In fact, some bamboo can grow to be as tall as a 10-story building! The best thing about bamboo is that it is extremely useful. It is so strong people use it to make furniture. Pine trees make good furniture, too. In some places, people even build their houses out of bamboo. If you traveled the whole world, you'd find bamboo shoes, cups, paper, rope, rafts, fences, flutes, barrels, beehives, and even bicycles made from bamboo!

To make a bamboo pencil holder of your own, all you need is

- 1 six-inch piece of thick bamboo
- 1 piece of coarse sand paper
- 1 piece of fine sand paper
- Clear varnish
- Glue
- Cardboard

And all you have to do is

1. Sand the outside of your piece of bamboo with the coarse sand paper until all the dirt has been removed.
2. Sand the bamboo with the fine sand paper until it is smooth.
3. Paint a thin coat of clear varnish over the outside of the bamboo.
4. Let the bamboo dry for at least six hours.
5. Apply glue to bottom rim of bamboo, then prepress into cardboard and trim.
6. Fill your new container with pens and pencils.

Reporting Category: 1 Content

Performance Indicator: 6.1.spi.20 Distinguish among various literary genres (e.g., poetry, drama, fiction, and non-fiction).

1 This passage is an example of

- A** poetry
- B** drama
- C** fiction
- D** non-fiction

Reporting Category: 2 Meaning

Performance Indicator: 6.1.spi.9 Evaluate text for fact and opinion.

2 Which sentence from the passage states an opinion?

- F** In fact, some bamboo can grow to be as tall as a 10-story building!
- G** Bamboo is a type of grass that usually grows in tropical climates.
- H** The best thing about bamboo is that it is extremely useful.
- J** It is strong enough to be made into furniture.

Reporting Category: 3 Vocabulary

Performance Indicator: 6.1.spi.5 Select appropriate synonyms, antonyms, and homonyms within context.

3 Read the sentence from the passage.

Paint a thin coat of clear varnish over the outside of the bamboo.

Which word means about the same as coat in this sentence?

- A** ridge
- B** piece
- C** color
- D** layer

Reporting Category: 4 Writing/Organization

Performance Indicator: 6.2.spi.2 Select an appropriate title that reflects the topic of a written selection.

4 Which of these would be the best title for the passage?

- F** The Wonders of Bamboo
- G** The History of Bamboo Trees
- H** Bamboo: Furniture of the Future
- J** How to Grow Your Own Bamboo

Reporting Category: 5 Writing/Process

Performance Indicator: 6.2.spi.10 Identify sentences irrelevant to a paragraph's theme or flow.

5 Which sentence from the passage is unnecessary?

- A** Pine trees make good furniture, too.
- B** In some places, people even build their houses out of bamboo.
- C** Sand the bamboo with the fine sand paper until it is smooth.
- D** Let the bamboo dry for at least six hours.

Reporting Category: 6 Grammar/Conventions

Performance Indicator: 6.3.spi.6 Choose the correct use of quotation marks and commas (i.e., in direct quotations, with explanatory material within the quote, and proper use with end marks).

6 Which sentence is punctuated correctly?

- F** "Does bamboo grow anywhere in the United States? Emilio wondered."
- G** "It grows in Hawaii and in some of the southeastern states," Mr. Vincent replied.
- H** "North American bamboo," he explained ",is shorter and thinner than Hawaiian bamboo."
- J** "Maybe someday we can take a field trip to see some wild bamboo?" Tricia suggested.

Reporting Category: 7 Techniques and Skills

Performance Indicator: 6.3.spi.7 Identify correctly (or incorrectly) spelled words in context.

7 Read the sentence.

We learned that new bamboo shoots are difficult to harvest, but delicious to eat.

Which word is spelled incorrectly?

- A** learned
- B** difficult
- C** harvest
- D** delicious

Mathematics



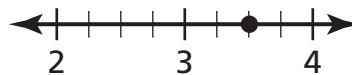
Reporting Category: 1 Number and Operations

Performance Indicator: 6.1.spi.4 Connect whole numbers, mixed numbers, fractions, and decimals to locations on the number line.

- 1** Which number line has a point marked at $3\frac{1}{4}$?



A



C



B



D

Reporting Category: 1 Number and Operations

Performance Indicator: 6.1.spi.7 Apply order of operations when computing with whole numbers (no parentheses or exponents).

- 2** Use order of operations to solve $6 + 9 \div 3 = \underline{\hspace{1cm}}$

F 5

G 9

H 11

J 18

Reporting Category: 2 Algebraic Thinking

Performance Indicator: 6.2.spi.1 Extend geometric and numerical patterns.

3 What is the next number in the pattern?

3, 6, 12, 24, 48,

A 72

B 82

C 86

D 96

Reporting Category: 2 Algebraic Thinking

Performance Indicator: 6.3.spi.2 Use ordered pairs to describe given points in Quadrant I of a coordinate system.

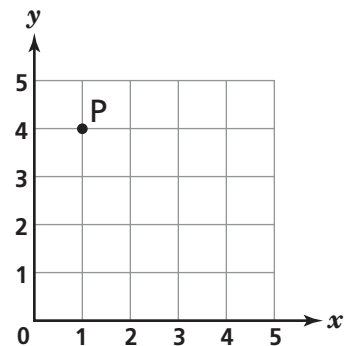
4 What are the coordinates of Point P ?

F (0, 4)

G (1, 0)

H (1, 4)

J (4, 1)



Reporting Category: 3 Real World Problem Solving

Performance Indicator: 6.4.spi.7 Solve real-world problems involving perimeter and area of rectangles.

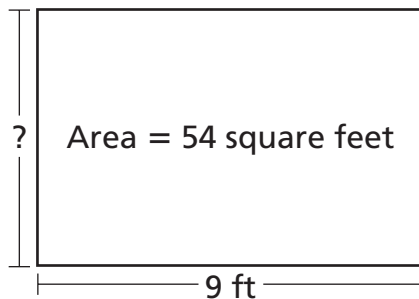
5 Ms. Davis is building a rectangular fence 30 feet long and 15 feet wide. How many feet of fencing does she need?

- A** 45 feet
- B** 90 feet
- C** 120 feet
- D** 450 feet

Reporting Category: 3 Real World Problem Solving

Performance Indicator: 6.4.spi.7 Solve real-world problems involving perimeter and area of rectangles.

6 The length of Susan's room is 9 feet. The area of the room is 54 square feet.



What is the perimeter of the room?

- F** 6 feet
- G** 15 feet
- H** 30 feet
- J** 63 feet

Reporting Category: 2 Algebraic Thinking

Performance Indicator: 6.2.spi.1 Extend geometric and numerical patterns.

7 What is the mean of the data set?

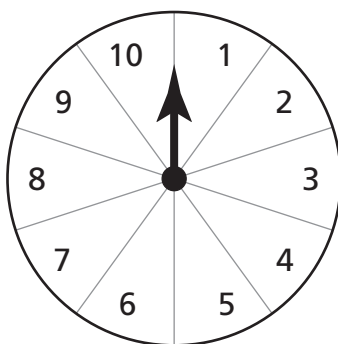
8, 2, 1, 9, 4, 6

- A** 5
- B** 5.5
- C** 6
- D** 6.5

Reporting Category: 4 Data Analysis and Probability

Performance Indicator: 6.5.spi.6 Represent the likelihood of an event using a number from 0–1.

8 The wheel below is divided into 10 equal parts.



Which represents the likelihood that if the arrow was spun one time it would land on an even number?

- F** 0
- G** $\frac{1}{10}$
- H** $\frac{1}{5}$
- J** $\frac{1}{2}$

Reporting Category: 5 Measurement

Performance Indicator: 6.4.spi.3 Convert from one unit to another within the same system.

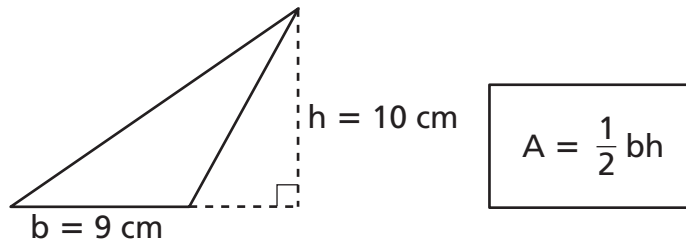
9 Which is equal to 7,000 centimeters?

- A** 7 meters
- B** 70 meters
- C** 70 kilometers
- D** 700 millimeters

Reporting Category: 5 Measurement

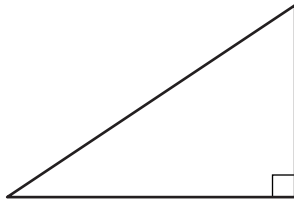
Performance Indicator: 6.4.spi.5 Apply formulas to determine the area of rectangles and triangles.

10 Use the formula to find the area of the triangle.

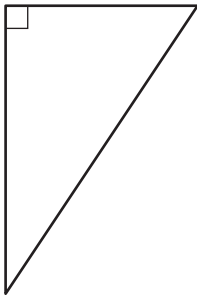
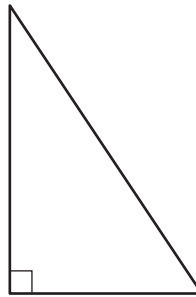
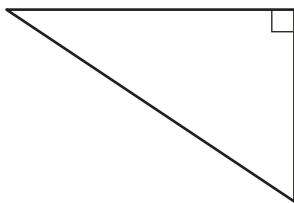
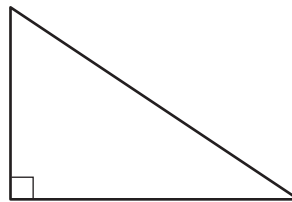


Note: The figure is not drawn to scale.

- F** $19\frac{1}{2}$ square centimeters
- G** 45 square centimeters
- H** 90 square centimeters
- J** 180 square centimeters

11

Which shows the result of a 90° rotation (turn) of the triangle?

**A****C****B****D**

Reporting Category: 6 Geometry

Performance Indicator: 6.3.spi.7 Classify quadrilaterals using their defining properties.

12 Russ drew a shape that has 4 equal sides and no right angles.

What shape did Russ draw?

F rectangle

G rhombus

H triangle

J trapezoid

Science



Reporting Category: 1 Living Things and Their Environments
Performance Indicator: 6.2.spi.2 Distinguish among commensalism, parasitism, and mutualism.

- 1** The long-nosed bat feeds from the flowers of cardon cacti. The cardon cacti flowers are pollinated by this type of bat.

The relationship between this cactus and bat is an example of

- A** competition
- B** commensalism
- C** mutualism
- D** parasitism

Reporting Category: 1 Living Things and Their Environments
Performance Indicator: 6.2.spi.3 Predict whether an organism can survive in a particular ecosystem.

- 2** Look at the structures of the organism shown below.



In which of these ecosystems would this animal most likely live?

- F** a wetland
- G** a dry grassland
- H** a snowy mountain
- J** an evergreen forest

Reporting Category: 2 Food Production and Energy for Life

Performance Indicator: 6.3.spi.2 Classify organisms as producers, consumers, or decomposers in a food chain or food web.

- 3** Living in a pond, this type of frog has green skin and feeds on insects and small fish.

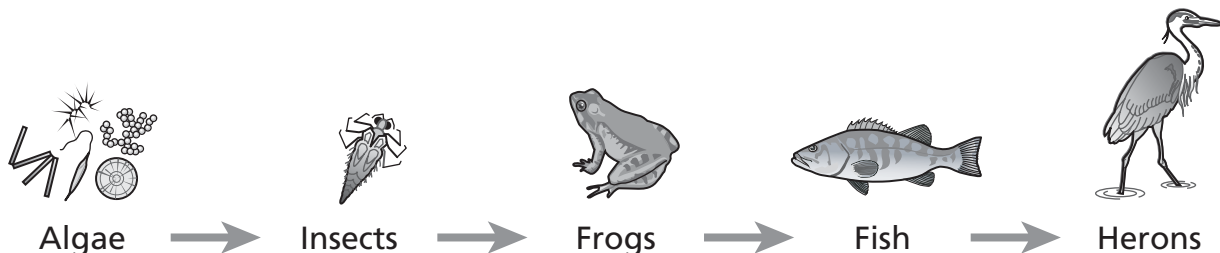
Which of these terms describes how the frog obtains food in this ecosystem?

- A** producer
- B** herbivore
- C** carnivore
- D** decomposer

Reporting Category: 2 Food Production and Energy for Life

Performance Indicator: 6.3.spi.3 Infer the consequences of a change in the population size of an organism in a food chain or food web.

- 4** A food chain from a lake is shown below.



According to this food chain, which effect would most likely happen first if most of the fish were removed from the lake?

- F** The frog population would decrease.
- G** The heron population would decrease.
- H** The insect population would increase.
- J** The algae population would decrease.

Reporting Category:**3 Diversity and Adaptation****Performance Indicator:****6.5.spi.1 Identify adaptations that enhance the survival of organisms in an environment.**

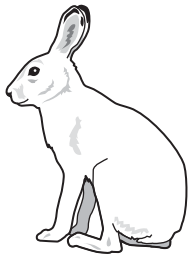
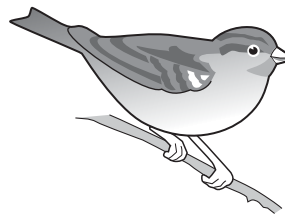
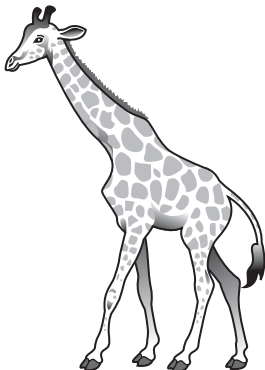
- 5** Some environments are very dry with hot daytime temperatures and cold nighttime temperatures. Which of these adaptations would best help an animal survive in this environment?

A thick fur
B webbed feet

C the ability to climb tall trees
D the ability to tunnel underground

Reporting Category:**3 Diversity and Adaptation****Performance Indicator:****6.5.spi.2 Determine which organisms are likely to survive in a particular environment.**

- 6** A certain environment is cold and snowy for most of the year. Which of these animals would be most likely to survive in this environment?

**F****H****G****J**

Reporting Category: 4 Biological Change

Performance Indicator: 6.6.spi.1 Analyze how fossils provide information about the past.

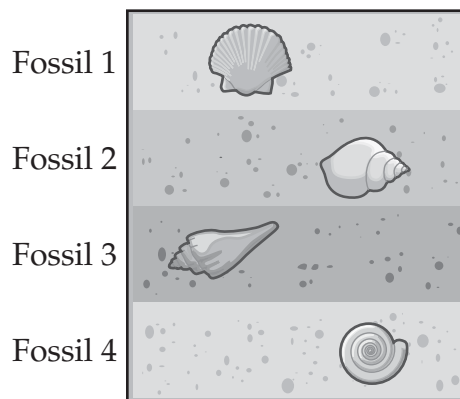
7 A scientist found many, pointed fossil teeth from an extinct animal. These fossils provide evidence that the extinct animal most likely

- A** ate meat
- B** ate plants
- C** moved slowly
- D** was active at night

Reporting Category: 4 Biological Change

Performance Indicator: 6.6.spi.3 Differentiate between the relative age of fossils in sedimentary rock.

8 The diagram below shows fossils in different rock layers.



Which of these statements about the age of these fossils is most likely correct?

- F** Fossil 1 and 3 are the same age.
- G** Fossil 2 is older than Fossil 3.
- H** Fossils 2 and 4 are the same age.
- J** Fossil 4 is older than Fossil 3.

Reporting Category:

5 Earth and Its Place in the Universe

Performance Indicator:

6.7.spi.1 Distinguish between a day, month, and year on Earth based on the movements of the Earth, sun, and moon.

9 The length of one year is the time it takes

- A** the moon to complete its phases
- B** Earth to complete 12 rotations around its axis
- C** Earth to complete one revolution around the sun
- D** the moon to complete one revolution around Earth

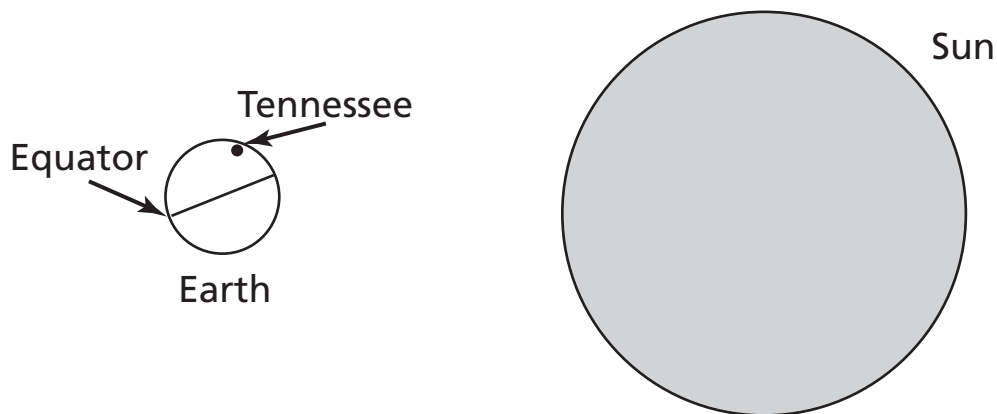
Reporting Category:

5 Earth and Its Place in the Universe

Performance Indicator:

6.7.spi.6 Select the diagram that reflects the Earth/sun relationship that accounts for the four seasons.

10 The diagram below shows the sun and Earth.



When Earth is in this position with respect to the sun, what season is it in Tennessee?

- F** winter
- G** spring
- H** summer
- J** fall

Reporting Category: 6 Energy

Performance Indicator: 6.14.spi.1 Predict the direction of heat flow between objects.

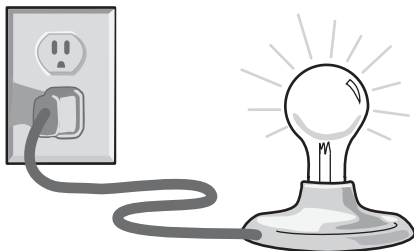
11 Terry is drinking hot coffee while Tia is having cold orange juice. After a while, both drinks reach room temperature because

- A** both drinks lose heat to the air
- B** both drinks gain heat from the air
- C** the coffee loses heat to the air, and the juice gains heat from the air
- D** the juice loses heat to the air, and the coffee gains heat from the air

Reporting Category: 6 Energy

Performance Indicator: 6.14.spi.3 Recognize a variety of energy transformations.

12 Energy is changing forms in the picture below.



Which of these best describes the energy transformation taking place?

- F** Light energy is being transformed into heat energy.
- G** Mechanical energy is being transformed into electrical energy.
- H** Electrical energy is being transformed into light energy and heat energy.
- J** Electrical energy is being transformed into heat energy and mechanical energy.

Social Studies



Reporting Category: 1 Economics

Performance Indicator: 6.2.spi.1 Recognize an example of a barter economy.

1 Which of these occurs in a barter economy?

- A** Workers trade services for goods.
- B** Employers pay workers with checks.
- C** Banks loan money to new businesses.
- D** Families use credit cards to buy goods.

Reporting Category: 1 Economics

Performance Indicator: 6.2.spi.5 Recognize the importance of trade in later civilizations (i.e., Mediterranean, Southeast Asian, Indian, European).

Ancient Cities in the Mediterranean Region

Athens
Carthage
Alexandria
Rome
Constantinople

2 Which of these statements explains why all the cities listed above became wealthy and powerful?

- F** They were located on rivers.
- G** They had very large populations.
- H** They were trading centers.
- J** They had democratic governments.

Reporting Category: 2 Government and Civics

Performance Indicator: 6.4.spi.2 Recognize the steps that give rise to complex governmental organizations (i.e., nomadic, farming, village, city, city-state, state).

3 Which of these has the most complex system of government?

- A** a city
- B** a village
- C** a nomadic group
- D** a farming community

Reporting Category: 2 Government and Civics

Performance Indicator: 6.4.spi.3 Identify the development of written laws (i.e., Hammurabi's Code, Justinian Code, Magna Carta).

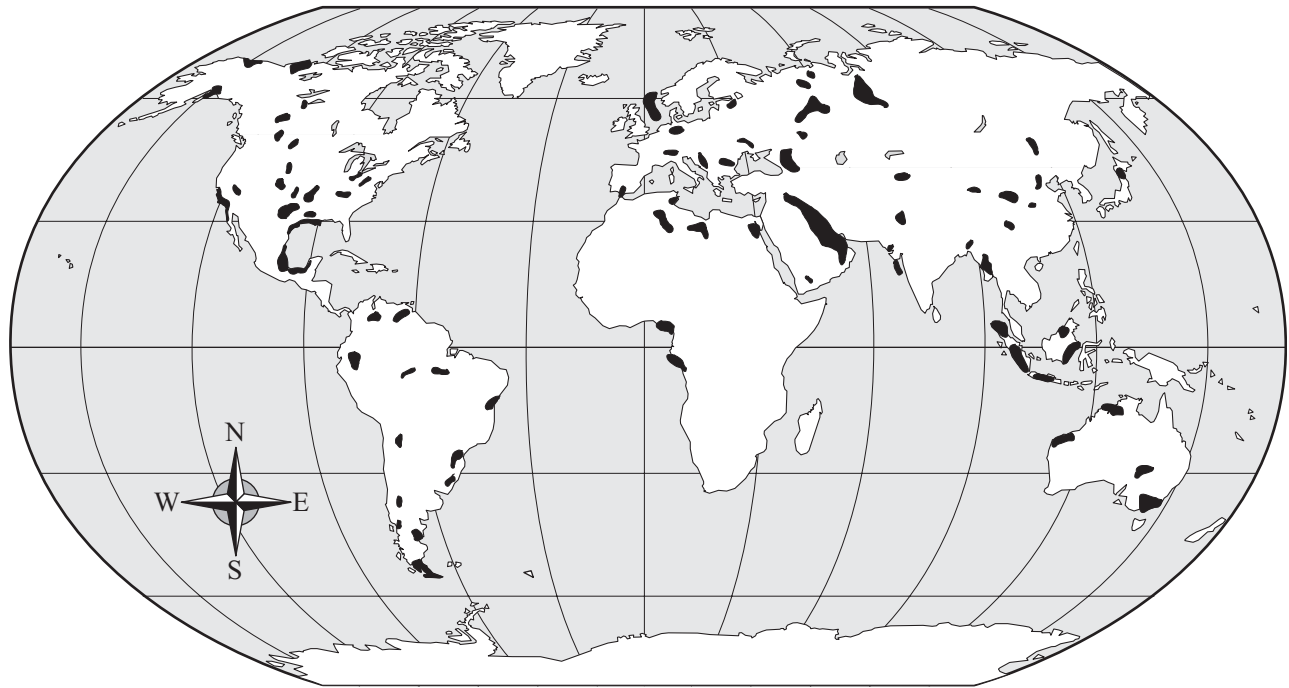
4 Why was the Magna Carta a step toward democracy?

- F** It limited the power of the king.
- G** It granted equal rights to all citizens.
- H** It declared independence from another country.
- J** It allowed people to elect their government leader.

Reporting Category: 3 Geography

Performance Indicator: 6.3.spi.5 Use a variety of maps to understand geographic and historical information (i.e., political maps, resource maps, product maps, physical maps, climate maps, vegetation maps).

Oil



KEY	
■	Major producing region

5 The map above would be most useful for learning about

- A** climate zones
- B** climate patterns
- C** resource locations
- D** vegetation regions

Reporting Category: 3 Geography

Performance Indicator: 6.3.spi.2 Identify basic geographic forms (i.e., rivers, lakes, bays, oceans, mountains, plateaus, deserts, plains, coastal plains).

6 This landform is a large area of flat or gently rolling land. It lies beside a large body of water.

What is it called?

- F** plateau
- G** canyon
- H** coastal plain
- J** mountain range

Reporting Category: 4 Prehistory–Ancient Civilizations

Performance Indicator: 6.5.spi.4 Recognize the forms of early world writing (i.e., cuneiform and Egyptian/Native American hieroglyphics).

Cuneiform
Hieroglyphics
Pictographs
Characters

7 All of the above were most helpful in improving peoples' abilities to

- A** grow more food crops
- B** use weapons for hunting
- C** move from place to place
- D** communicate with each other

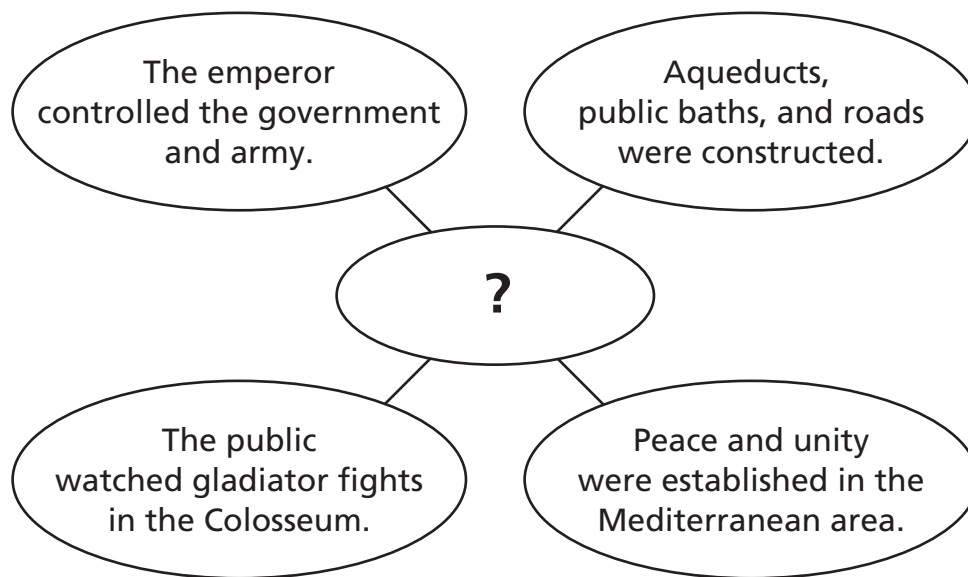
Reporting Category:

4 Prehistory–Ancient Civilizations

Performance Indicator:

6.5.spi.11 Identify characteristics including economy, social relations, religion, and political authority of various societies (i.e., Mesopotamian, Egyptian, Greek City-States, Roman Empire, Indian, Medieval).

8 Which of these best fits in the diagram?



- F** Kingdom of Egypt
- G** Greek City-States
- H** Mesopotamian City-States
- J** Roman Empire

Reporting Category: 5 Dark Ages–Renaissance OR 4 Prehistory–Ancient Civilizations

Performance Indicator: 6.1.spi.2 Identify the job characteristics of archaeologists, anthropologists, geologists, and historians.

9 I study rocks and other physical features to learn how Earth changed in the past and how it is changing today.

What is my job?

- A** anthropologist
- B** archaeologist
- C** geologist
- D** historian

Reporting Category: 5 Dark Ages–Renaissance OR 4 Prehistory–Ancient Civilizations

Performance Indicator: 6.1.spi.3 Recognize the world’s major religions and their founders (i.e., Judaism, Christianity, Islam, Buddhism, Hinduism, Moses, Jesus, and Muhammad).

10 Hinduism and Buddhism are best described as

- F** world religions
- G** ancient languages
- H** economic systems
- J** government structures

Answer Key

Reading and Language Arts

1	D
2	H
3	D
4	F
5	A
6	G
7	B

Mathematics

1	B
2	G
3	D
4	H
5	B
6	H
7	A
8	J
9	B
10	G
11	C
12	G

Science

1	C
2	F
3	C
4	G
5	D
6	F
7	A
8	J
9	C
10	F
11	C
12	H

Social Studies

1	A
2	H
3	A
4	F
5	C
6	H
7	D
8	J
9	C
10	F